

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

1. (CURRENTLY AMENDED) A method of improving BIOS (Basic Input Output System) security of a computer system, comprising:
checking for a default value in manufacturing of a product serial number of a BIOS ROM (Read Only Memory);

storing a check sum value calculated by byte-adding a user password and ~~at~~the product serial number of ~~at~~the BIOS ROM (Read Only Memory) comprising storing an added check sum value that is calculated by byte-adding the user password and the product serial number in a memory, when the product serial number is not ~~at~~the default value in manufacturing;

comparing the stored check sum value with a check sum value calculated by byte-adding an inputted password and the product serial number of the BIOS ROM; and

enabling writing to the BIOS ROM when the stored check sum value and the calculated check sum value are equal.

2. (PREVIOUSLY PRESENTED) The method of improving BIOS security according to claim 1, wherein the storing the check sum value comprises:

determining if the user password is set up on a POST (Power On Self Test); and

determining the product serial number of the BIOS ROM in a case that the user password is set up.

3. (ORIGINAL) The method of improving BIOS security according to claim 2, further comprising:

setting up a memory-mapped input/output region assigned as a BIOS writing protection region of a chipset having a GPIO (General Purpose Input Output) function as an input/output trap region and enabling an input/output trap.

4. (ORIGINAL) The method of improving BIOS security according to claim 2,

wherein the storing the added check sum value in the memory comprises:

storing the added check sum value in a CMOS (Complementary Metal Oxide Semiconductor) RAM (Random Access Memory) or a PNP NVRAM (Plug And Play Non-Volatile Random Access Memory).

5. (PREVIOUSLY PRESENTED) The method of improving BIOS security according to claim 1, further comprising:

setting up a memory-mapped input/output region assigned as a BIOS writing protection region of a chipset having a GPIO (General Purpose Input Output) function as an input/output trap region and enabling an input/output trap;

allowing an event disabling a BIOS writing protection during operation of the computer system to occur;

setting up the input/output trap as disabled;

determining the product serial number of the BIOS ROM;

allowing a user to input the inputted password when the product serial number is not the default value in manufacturing; and

calculating a check sum value by byte-adding the inputted password and the product serial number.

6. (ORIGINAL) The method of improving BIOS security according to claim 5, further comprising:

enabling the input/output trap after enabling writing to the BIOS ROM.

7. (PREVIOUSLY PRESENTED) The method of improving BIOS security according to claim 5, further comprising:

displaying an error message when the product serial number is the default value in manufacturing, or when the check sum values are not equal.

8. (ORIGINAL) The method of improving BIOS security according to claim 5, wherein the allowing of the event disabling of the BIOS writing protection to occur comprises allowing the input/output trap to occur, or allowing writing to the BIOS ROM by a PNP NVRAM (Plug And Play Non-Volatile Random Access Memory) manager to occur.

9. (ORIGINAL) The method of improving BIOS security according to claim 8, further

comprising:

determining if the input/output trap is set up as enabled when the writing to the BIOS ROM by the PNP NVRAM manager occurs.

10. (ORIGINAL) The method of improving BIOS security according to claim 9, further comprising:

displaying an error message when the input/output trap is determined not to be set up as enabled when the writing to the BIOS ROM by the PNP NVRAM manager occurs.

11. (ORIGINAL) The method of improving BIOS security according to claim 7, further comprising:

enabling the input/output trap after displaying the error message.

12. (ORIGINAL) The method of improving BIOS security according to claim 10, further comprising:

enabling the input/output trap after displaying the error message.

13. (CURRENTLY AMENDED) A machine-readable medium that provides instructions, which, when executed by a machine, cause the machine to perform operations of improving BIOS (Basic Input Output System) security of a computer system comprising:

checking for a default value in manufacturing of a product serial number of a BIOS ROM (Read Only Memory);

storing a check sum value calculated by byte-adding a user password and thea product serial number of athe BIOS ROM (Read Only Memory);

comparing the stored check sum value with a check sum value calculated by byte-adding an inputted password and the product serial number of the BIOS ROM; and

enabling writing to the BIOS ROM when the stored check sum value and the calculated check sum value are equal, and the product serial number of the BIOS is not the default value.

14. (CURRENTLY AMENDED) A method of improving BIOS (Basic Input Output System) security of a computer system, comprising:

checking for a default value in manufacturing of a product serial number of a BIOS ROM (Read Only Memory);

receiving an inputted password; and

Serial No. 10/603,746

enabling writing to the BIOS ROM, having a security maintenance structure, when a stored check sum value and a calculated check sum value calculated by byte-adding the inputted password and atthe product serial number of the BIOS ROM are equal, and the product serial number of the BIOS is not the default value,

wherein the security maintenance structure of the BIOS ROM is not changed.